

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Claim 1 (currently amended): A tape drive system, comprising:

a stationary base;

at least one stationary guide projection mounted to the stationary base; [[and]]

a receiver for receiving a tape cartridge and transporting the tape cartridge from an ejected position to a loaded position, the receiver comprising at least one guide slot mating with one of the at least one stationary guide projections, each guide slot being shaped to allow the receiver to move a first distance in a horizontal direction and a second distance in a vertical direction;

at least one receiver projection provided on the receiver; and

at least one linearly moveable actuator comprising at least one cam engaging the at least one receiver projection such that as the actuator moves horizontally, each cam engages one of the receiver projections to effect movement of the receiver.

Claim 2 (cancelled)

Claim 3 (currently amended): The system of claim [[2]]1, wherein:

each guide slot is shaped to have a horizontal region and a vertical region; and

each cam engages one of the at least one receiver projections to drive the receiver to move first in the horizontal direction until the receiver travels the first distance and then in the vertical direction until the receiver travels the second distance.

Claim 4 (currently amended): The system of claim [[2]]1, wherein each of the at least one stationary guide projections comprises a pin.

Claim 5 (original): The system of claim 4, wherein the guide slot comprises a polymer.

Claim 6 (currently amended): The system of claim [[2]]1, further comprising a rotating drive shaft for driving the actuator.

Claim 7 (currently amended): The system of claim [[2]]1, ~~further comprising: wherein the at least one stationary guide projection comprises a first and second stationary guide projection, the [[a]] second stationary guide projection mounted to a side of the stationary base opposite the first stationary guide projection; and~~

wherein the receiver comprises:

a top portion;

a first side and a second side opposite the first side, the first and second sides each comprising at least one receiver projection of the at least one receiver projections and at least one guide slot mating with one of the first or second stationary guide projections.

Claim 8 (original): The system of claim 3, wherein each cam comprises a ramp such that as the cam engages the receiver projection to drive the receiver to move the first distance in the horizontal direction, the receiver projection remains in static contact with a beginning of the ramp, and as the cam engages the receiver projection to drive the receiver to move the second distance in the vertical direction, the receiver projection slides along the ramp.

Claim 9 (withdrawn): The system of claim 8, wherein the actuator further comprises a clamping member configured to retain the receiver in the loaded position.

Claim 10 (withdrawn): The system of claim 9, wherein the clamping member is provided at an end portion of the ramp.

Claim 11 (currently amended): The system of claim [[2]]1, further comprising:
a brake release lever comprising a body portion and a pivot portion rotatably coupled to the actuator and engaging a stationary member such that as the actuator moves horizontally, the

pivot portion of the brake release lever translates horizontally while a distal end of the body portion of the brake release lever translates horizontally and vertically.

Claim 12 (original): The system of claim 11, wherein the stationary member comprises the stationary guide projection.

Claim 13 (original): The system of claim 12, wherein the body portion of the brake release lever further comprises:

an angled slot having the stationary guide projection received therein, the slot being shaped such that as the brake release lever moves horizontally, the stationary member travels through the slot to thereby translate the distal end of the brake release lever vertically.

Claim 14 (currently amended): The system of claim 13, wherein the brake release lever further comprises:

a ~~flange finger~~ provided at the distal end of the brake release lever, the ~~flange finger~~ being configured to enter a brake release aperture in a tape cartridge received in the receiver as the brake release lever translates vertically.

Claim 15 (currently amended): The system of claim [[2]]1, further comprising:
a reel driver for mating with a cartridge reel in a tape cartridge inserted into the receiver;
and

a brake release for releasing a brake in the tape cartridge prior to the cartridge reel being mated with the reel driver.

Claim 16 (currently amended): The system of claim [[2]]1, further comprising:
a spring applying an upward force on the receiver in the vertical direction.

Claim 17 (original): The system of claim 16, wherein the spring and the receiver are configured such that the spring applies a variable upward force on the receiver.

Claim 18 (currently amended): The system of claim 17, wherein:

the spring comprises a torsion spring coupled to the receiver, the torsion spring having a spring axis and an elongated spring arm extending from the spring axis and applying a force onto a spring contacting member of the actuator at a contact point along the spring arm; and

the spring arm and the spring contacting member are positioned such that as the receiver moves [[to]] vertically to the loaded position, the contact point moves closer to the spring axis, thereby increasing the force applied by the spring arm onto the spring contacting member.

Claim 19 (currently amended): A method of loading a tape cartridge into a tape drive system having a stationary base and at least one guide projection mounted to the stationary base, comprising:

receiving a tape cartridge in a receiver having at least one guide slot having a first portion and a second portion; and

moving the receiver from an ejected position to a loaded position by:

passing the guide projection through the first portion of the guide slot to move the receiver a first distance in a horizontal direction; and

passing the guide projection through the second portion of the guide slot to move the receiver a second distance in a vertical direction, wherein the moving the receiver from the ejected position to the loaded position comprises:

linearly translating an actuator having at least one cam;

engaging the at least one cam with the receiver such that linear movement of the actuator causes movement of the receiver.

Claim 20 (cancelled)

Claim 21 (currently amended): The method of claim [[20]]19, wherein the linearly translating the actuator comprises:

rotating a drive shaft;

engaging an actuator gear on the drive shaft with a gear on the actuator to linearly translate the actuator.

Claim 22 (currently amended): The method of claim [[20]]19, wherein the engaging the cam with the receiver comprises:

engaging the at least one cam with the receiver such that each cam engages a receiver projection on the receiver to drive the receiver to move first in the horizontal direction until the receiver travels the first distance and then in the vertical direction until the receiver travels the second distance.

Claim 23 (original): The method of claim 22, wherein:

the engaging the at least one cam with the receiver such that each cam engages the receiver projection on the receiver to drive the receiver to move first in the horizontal direction until the receiver travels the first distance comprises statically engaging the cam with the receiver projection; and

the engaging the at least one cam with the receiver such that each cam engages the receiver projection on the receiver to drive the receiver to move in the vertical direction until the receiver travels the second distance comprises slidably engaging the cam with the receiver projection.

Claim 24 (withdrawn/currently amended): The method of claim [[20]]19, further comprising:

clamping the receiver in the loaded position using a clamping member provided on the actuator.

Claim 25 (currently amended): The method of claim [[20]]19, further comprising:

releasing a brake in the tape cartridge prior to mating a cartridge reel in the tape cartridge with a reel drive in the tape drive system.

Claim 26 (currently amended): The method of claim [[20]]19, further comprising:
releasing a brake in the tape cartridge using a brake release lever comprising a body portion and a pivot portion rotatably coupled to the actuator and engaging a stationary member such that as the actuator moves horizontally, the pivot portion of the brake release lever translates horizontally while a distal end of the body portion of the brake release lever translates horizontally and vertically.

Claim 27 (currently amended): The method of claim [[20]]19, further comprising:
applying a variable upward force in the vertical direction on the receiver.

Claims 28-48 (cancelled)